



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,649	02/19/2004	Zheng Yang	CIS03-58(8290)	5508
58406 7590 11/23/2007 BARRY W. CHAPIN, ESQ. CHAPIN INTELLECTUAL PROPERTY LAW, LLC WESTBOROUGH OFFICE PARK 1700 WEST PARK DRIVE WESTBOROUGH, MA 01581			EXAMINER WILSON, ROBERT W	
			ART UNIT 2619	PAPER NUMBER
			MAIL DATE 11/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/782,649	Applicant(s) YANG ET AL.	
	Examiner Robert W. Wilson	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-11 & 23-24 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,12-14,16,17,19 and 25 is/are rejected.
- 7) ☒ Claim(s) 2,5,7-9,15,18,20-22,26 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, 6, 12-14, 16-17, 19, & 25 are rejected under 35 U.S.C. 102(B) as being anticipated by Johnson (U.S. Patent No.: 6,247,059).

Referring to claim 1, Johnson teaches: a method for distributing content in a content distribution network, the method occurring in a computerized device (Sending node 12 is the computerized device which performs the method) comprising the steps of:

Sending a multicast message to a plurality of content engine receivers, the multicast message including content to be distributed among the plurality of content engine receivers (One of the nodes 12 per Fig 1 is a sending node which sends a multicast message to the plurality of nodes 12 (internode specifically per col. 4 lines 34 to 40) and the message has a payload or content per col. 3 line 46 to col. 7 line 23)

Waiting a predetermined period for a negative acknowledgment message from at least one of the plurality of content engine receivers (Sending node 12 has a timer which measure time from sending a multicast message until time duration of the roundtrip time to a receive a NAK per col. 3 line 46 to col. 7 line 23)

If a negative acknowledgement message from at least one of the plurality of content engine receivers is received before the expiration of a predetermined period then resending the multicast message a predetermined number of times (sending node 12 receives a NAK within a predetermined period time (roundtrip interval) and resends the message that was multicast to the node which sent the NAK per col. 3 line 46 to col. 7 line 23)

In addition Johnson teaches:

Regarding claim 3, further comprising the step of receiving a negative acknowledgment message from one of the plurality of content engine receivers after the predetermined period has expired (Sending node 12 measures the period until timer times out and could receive a NAK after the time out per col. 3 line 46 to col. 7 line 23)

And sending a unicast message of contents to be distributed to one of the one content engine receiver in response to the negative acknowledgement message received after the predetermined time (after the timeout the node 12 sender determines which receiving node 12s did not send either a ACK or NAK and sends a message to the specific receiving node 12 which sent the NAK which the examiner interprets as a unicast message per col.6 line 9 to col. 7 line 23)

Regarding claim 4, wherein the step of sending further comprises the step of sending the multicast message in response to a negative response to a negative acknowledgment message from at least one of the plurality of content engine receivers (The sending node 12 sends the message in response to the NAK received from the receiving node 12 which sends the NAK per col.6 line 9 to col. 7 line 22)

Regarding claim 6, wherein the negative acknowledgment includes a request for at least one file not received in the multicast message and wherein the step of resending the multicast message further comprises resending only the at least one file requested in the negative acknowledgment (NAK request has a Seq # or file number which has not been received and sending node 12 resends the appropriate Seq # or file per col.6 line 9 to col. 7 line 22)

Referring to claim 12, Johnson teaches: a content engine sender (Sending node 12) comprising:

Means for sending (processor 16 per Fig 2) a multicast message to a plurality of content engine receivers, the multicast message including content to be distributed among the plurality of content engine receivers (One of the nodes 12 per Fig 1 is a sending node which sends a multicast message to the plurality of nodes 12 (internode specifically per col. 4 lines 34 to 40) and the message has a payload or content per col. 3 line 46 to col. 7 line)

Means for waiting (processor 16 per Fig 2) a predetermined period for a negative acknowledgment message from at least one of the plurality of content engine receivers (Sending node 12 has a timer which measure time from sending a multicast message until time duration of the roundtrip time to a receive a NAK per col.6 line 9 to col. 7 line 22)

Means for (processor 16) if a negative acknowledgement message from at least one of the plurality of content engine receivers is received before the expiration of a predetermined period then resending the multicast message a predetermined number of times (sending node 12 receives a NAK within a predetermined period time (roundtrip interval) and resends the message that was multicast to the node which sent the NAK per col.6 line 9 to col. 7 line 22)

Referring to claim 13, Johnson teaches: a computer program stored on a computer readable medium including computer program logic that when executed in a processor of a computer system directs the computer system to perform the operations of (Sending Node 12 per Fig 1 has Processor 16 which has a program stored in memory 20 per Fig 2 which perform inherent computer program logic performs the operation)

Sending a multicast message to a plurality of content engine receivers, the multicast message including content to be distributed among the plurality of content engine receivers (One of the nodes 12 per Fig 1 is a sending node which sends a multicast message to the plurality of nodes 12 (internode specifically per col. 4 lines 34 to 40) and the message has a payload or content per col. 3 line 46 to col. 7 line 23)

Waiting a predetermined period for a negative acknowledgment message from at least one of the plurality of content engine receivers (Sending node 12 has a timer which measure time from sending a multicast message until time duration of the roundtrip time to a receive a NAK per col.6 line 9 to col. 7 line 22)

If a negative acknowledgement message from at least one of the plurality of content engine receivers is received before the expiration of a predetermined period then resending the multicast message a predetermined number of times (sending node 12 receives a NAK within a predetermined period time (roundtrip interval) and resends the message that was multicast to the node which sent the NAK per col.6 line 9 to col. 7 line 22)

Referring to claim 14, Johnson teaches: a computerized device (Sending node 12) for distributing content in a content distribution network comprising:

A processor (16 per Fig 2)

A memory (20 per Fig 2)

A network interface (24 per Fig 2)

An interconnection mechanism (Bus per Fig 2) coupling the processor (16 per Fig 2) , the memory (20 per Fig 2) and the network interface (24 per Fig 2)

Wherein the memory (20 per Fig 2) is encoded with logic that when executed by the processor as a process causes the computerized device to perform the operations (program stored in memory)

Sending a multicast message to a plurality of content engine receivers, the multicast message including content to be distributed among the plurality of content engine receivers (One of the nodes 12 per Fig 1 is a sending node which sends a multicast message to the plurality of nodes 12 (internode specifically per col. 4 lines 34 to 40) and the message has a payload or content per col. 3 line 46 to col. 7 line 23)

Waiting a predetermined period for a negative acknowledgment message from at least one of the plurality of content engine receivers (Sending node 12 has a timer which measure time from

sending a multicast message until time duration of the roundtrip time to a receive a NAK per col.6 line 9 to col. 7 line 22)

If a negative acknowledgement message from at least one of the plurality of content engine receivers is received before the expiration of a predetermined period then resending the multicast message a predetermined number of times (sending node 12 receives a NAK within a predetermined period time (roundtrip interval) and resends the message that was multicast to the node which sent the NAK per col.6 line 9 to col. 7 line 22)

In addition Johnson teaches:

Regarding claim 16, wherein the logic further causes the computerized device to perform the operation of receiving a negative acknowledgment message from one of the plurality of content engine receivers after the predetermined period has expired (Sending node 12 measures the period until timer times out and could receive a NAK after the time out per col.6 line 9 to col. 7 line 22)

And sending a unicast message of contents to be distributed to one of the one content engine receiver in response to the negative acknowledgement message received after the predetermined time (after the timeout the node 12 sender determines which receiving node 12s did not send either a ACK or NAK and sends a message to the specific receiving node 12 which sent the NAK which the examiner interprets as a unicast message per col.6 line 9 to col. 7 line 22)

Regarding claim 17, wherein when the logic causes the computerized device to perform the operation of sending the logic causes the computerized device to perform the operation of sending the multicast message in response to a negative acknowledgment message form at least one of the plurality of content engine receivers. (The sending node 12 sends the message in response to the NAK received from the receiving node 12 which sends the NAK per col.6 line 9 to col. 7 line 22)

Regarding claim 19, wherein the negative acknowledgment includes a request for at least one file not received in the multicast message and wherein when the logic causes the computerized device to perform the operation of resending the logic causes the computerized device to perform the operation of resending only the at least one file requested in the negative acknowledgment (NAK request has a Seq # or file number which has not been received and sending node 12 resends the appropriate Seq # or file performed in logic in processor 16 per Fig 2 per col. 6 line 9 to col. 7 line 22)

Referring to claim 25, Johnson teaches: a device for distributing content in a content distribution network (Sending node 12) comprising:

A memory (20 per Fig 2)

A storage device further to store a multicast period and a threshold number of multicast passes the storage device further to store content to be distributed in the content distribution network (Memory 20 per Fig 2 is capable of storing the round trip time or interval and resending the multicast message)

A controller (16 per Fig 2) in communication with the memory (20 per Fig 2) and storage device (20 per Fig 2) the controller configured to send multicast message to include a plurality of content engine receives the message to include a portion of the content (plurality of content engine receivers) the multicast message has inherent content per col. 6 lines 9 to 51 and per col. 5 line 63 to col. 6 line 7) the controller further configured to wait the multicast period for a negative acknowledgment message from at least one of the plurality of content engine receiver (Sending node 12 has a timer which measure time from sending a multicast message until time duration of the roundtrip time to a receive a NAK per col.6 line 9 to col. 7 line 22) the controller further configured to resend the multicast message the threshold number of multicast number of multicast if a negative acknowledgment message is received before expiration of the multicast period (sending node 12 receives a NAK within a predetermined period time (roundtrip interval) and resends the message that was multicast to the node at least one time which sent the NAK per col.6 line 9 to col. 7 line 22)

Allowable Subject Matter

3. Claims 10-11 & 23-24 are allowed. The following is an Examiner's statement of reasons for allowance: Claims 1—11 & 23-24 are considered allowable since when reading the claims in light of the specification, none of the prior art reference or in combination disclose or suggest the combination of limitations specified in the independent claims including:

“If the primary content engine sender is active,
a) disregarding the negative acknowledgment message; and

b) if a second negative acknowledgment message is received, sending a network alert; and

if the primary content engine sender is inactive, sending a multicast message to the plurality of content engine receivers in response to the negative acknowledgment message “, as specified in claims 10 & 23.

“if a response to the negative acknowledgement is not received from the primary content sender, sending the negative acknowledgment message to a secondary content sender thereby triggering a backup system” as specified in claims 11 & 24.

Allowable Subject Matter

4. Claims 2, 5, 7-9, 15, 18, 20-22, & 26-27 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

5. Applicant's arguments filed 10/1/07 have been fully considered but they are not persuasive.

The examiner respectfully disagrees with the applicant argument that inherent features are meaningless in a 102 rejection.

MPEP Para. 2112 specifically states "inherent features of a disclosure may be relied upon in a 35USC102 rejection.

The examiner respectfully disagrees with the applicant argument that the multicast message of Johnson is not distributed to a plurality of content engine receivers.

Johnson teaches: multicast message is distributed to a plurality of content engine receivers (One of the nodes 12 per Fig 1 is a sending node which sends a multicast message (internode) per col. 4 lines 34 to 40)

The examiner disagrees with the applicant's argument that the reference needs to disclose the details of the payload of the message because the details of the payload are not part of the claimed invention. The reference teaches the details including payload of the message per col. 4 line 57 to col. 5 line 19

The applicant has broadly claimed "resending the multicast message a predetermined number of times". The examiner points out that an earlier claim limitation is "sending a multicast message to a plurality of content engine receivers". The second time the applicant did not say that the "resending the multicast message plurality of receivers". It is the job of the examiner to interpret the claim language in the broadest sense.

The examiner respectfully disagrees with the applicant's argument that the reference Johnson does not read on "resending the multicast message a predetermined number of times"? Johnson teaches "resending the multicast message a predetermined number of times" per col. 6 lines 43-45 and col. 7 lines 1-5. The examiner interpreted "resending the multicast message a

predetermined number of times” as the message which was previously sent will be resent a predetermined number of times.

The examiner respectfully disagrees with the applicants argument that the reference Johnson does not teach ”sending a unicast message of content to be distributed to the one content engine receiver in response to the negative acknowledgment message received after the predetermined period has expired” .

Johnson teaches” sending a unicast message of content to be distributed to the one content engine receiver in response to the negative acknowledgment message received after the predetermined period has expired” per col. 7 lines 9 to 22.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075.

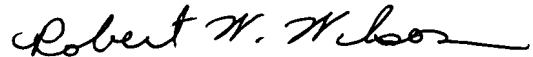
The examiner can normally be reached on M-F (8:00-4:30).

Application/Control Number:
10/782,649
Art Unit: 2619

Page 9

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571/272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Robert W Wilson
Examiner
Art Unit 2616

RWW
11/19/07